

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended) A method for forming an electric circuit on a construction member of a machine based on a set of three-dimensional data, the data used to determine a position and a profile of the construction member, a position of the electric circuit, and a shape of the electric circuit, the electric circuit used for electrical connection between electric instruments mounted on the construction member,

wherein the data is associated with a reference coordinate system provided in the machine, and the data includes coordinates of points for determining arrangement of the electric circuit, a distance between any two of the points adjacent to each other, and a cross-sectional area of the electric circuit extended between the two points,

~~the method comprising the step of jetting a molten metal against the construction member to deposit the molten metal on a surface of the construction member to form the electric circuit on the construction member based on the data.~~

the method comprising the step of converting the data to a second set of data associated with a reference coordinate system provided in the construction member, the method further

comprising the step of intermittently jetting a first molten metal against the construction member to define a row of metal grains so as to deposit the first molten metal on a surface of the construction member to form the electric circuit on the construction member based on the second set of data.

Claims 2-6 (canceled).

Claim 7 (original) The method as described in claim 1 wherein an insulator is layered on the electric circuit.

Claim 8 (currently amended) The method as described in claim 7 wherein the method comprises the step of jetting a second molten metal against the insulator ~~construction member~~ to deposit the second molten metal on the insulator.

Claims 9-10 (canceled).

Claim 11 (currently amended) A method for forming an electric circuit on an insulating intermediate member laid on a construction member of a machine based on a set of three-dimensional data, the data used to determine a position and a profile of the construction member, a position of the electric circuit, and a shape of the electric circuit, the electric circuit used for

electrical connection between electric instruments mounted on the construction member,

wherein the data is associated with a reference coordinate system provided in the machine, and the data includes coordinates of points for determining arrangement of the electric circuit, a distance between any two of the points adjacent to each other, and a cross-sectional area of the electric circuit extended between the two points,

~~the method comprising the step of jetting a molten metal against the construction member to deposit the molten metal on a surface of the insulating intermediate member to form the electric circuit on the insulating intermediate member based on the data.~~

the method comprising the step of converting the data to a second set of data associated with a reference coordinate system provided in the construction member or on the intermediate member.

the method comprising the step of intermittently jetting a first molten metal against the construction member to define a row of metal grains so as to deposit the first molten metal on a surface of the intermediate member to form the electric circuit on the surface of the intermediate member based on the second set of data.

Claims 12-16 (canceled).

Claim 17 (original) The method as described in claim 11 wherein an insulator is layered on the electric circuit defined on the insulating intermediate member.

Claim 18 (currently amended) The method as described in claim 17 wherein the method comprises the step of jetting a second molten metal against the insulator to deposit the second molten metal on the insulator.

Claims 19-50 (canceled)